

AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A system having diamond-like carbon (DLC) contact surfaces, comprising:

relatively movable, facing contact surfaces at least one of which is coated with DLC, and

a lubricant for a system having DLC contact surfaces interposed between said contact surfaces, said lubricant fulfilling following conditions (a), ~~and (b)~~, (c), and (d):

(a) wherein said lubricant for a system having DLC contact surfaces comprises a lubricant base oil (A) containing, as a main component, a base oil (X) consisting at least one of a hydrocracked mineral oil, a wax-isomerized mineral oil, and a poly- α -olefin base oil, wherein said base oil (X) has a kinematic viscosity of 2 to 20 mm²/s at 100 °C, a total aromatic content of not higher than 5 mass%, and a sulfur content of not higher than 0.005 mass%; and

(b) wherein said lubricant for a system having DLC contact surfaces has a sulfur content of not higher than 0.2 mass%;

(c) wherein said lubricant comprises a sulfur-free metal detergent (B); and

(d) wherein said lubricant is free of sulfur-containing additives selected from the group consisting of zinc dithiophosphate, sulfur-containing metal detergents, and mixtures thereof.

2. (Currently Amended): The system according to claim 1, wherein said lubricant for a system having DLC contact surfaces further comprises at least one of ~~a sulfur-free metal detergent (B)~~, a sulfur-free phosphorus compound (C), and a sulfur-free ashless anti-oxidant (D).

3. (Original): The system according to claim 1, wherein said lubricant for a system having DLC contact surfaces further comprises a friction modifier consisting at least one of an oxygen-containing organic compound and aliphatic amines.

4. (Original): The system according to claim 1, wherein said contact surfaces comprise contact surfaces in an internal combustion engine.

5. (Currently Amended): A method of lubricating DLC contact surfaces, comprising lubricating relatively movable, facing contact surfaces at least one of which is coated with DLC, with a lubricant for a system having DLC contact surfaces interposed between said contact surfaces, said lubricant fulfilling following conditions (a), ~~and (b)~~, (c), and (d):

(a) wherein said lubricant for a system having DLC contact surfaces comprises a lubricant base oil (A) containing, as a main component, a base oil (X) consisting at least one of a hydrocracked mineral oil, a wax-isomerized mineral oil, and a poly- α -olefin base oil, wherein said base oil (X) has a kinematic viscosity of 2 to 20 mm²/s at 100 °C, a total aromatic content of not higher than 5 mass%, and sulfur content of not higher than 0.005 mass%; ~~and~~

(b) wherein said lubricant for a system having DLC contact surfaces has a sulfur content of not higher than 0.2 mass%;

(c) wherein said lubricant comprises a sulfur-free metal detergent (B); and

(d) wherein said lubricant is free of sulfur-containing additives selected from the group consisting of zinc dithiophosphate, sulfur-containing metal detergents, and mixtures thereof.

6. (Currently Amended): A lubricant for a system having DLC contact surfaces, said lubricant being for lubricating relatively movable, facing contact surfaces at least one of which is coated with DLC, and fulfilling following conditions (a), ~~and (b)~~, (c) and (d):

(a) wherein said lubricant for a system having DLC contact surfaces comprises a lubricant base oil (A) containing a base oil (X) as a main component, said base oil (X) consisting at least one of a hydrocracked mineral oil, a wax-isomerized mineral oil, and a poly- α -olefin base oil, and having a kinematic viscosity of 2 to 20 mm²/s at 100 °C, a total aromatic content of not higher than 5 mass%, and a sulfur content of not higher than 0.005 mass%; ~~and~~

(b) wherein said lubricant for a system having DLC contact surfaces has a sulfur content of not higher than 0.2 mass%

(c) wherein said lubricant comprises a sulfur-free metal detergent (B); and

(d) wherein said lubricant is free of sulfur-containing additives selected from the group consisting of zinc dithiophosphate, sulfur-containing metal detergents, and mixtures thereof.

7. (Currently Amended): The lubricant according to claim 6, further comprising at least one of a ~~sulfur-free metal detergent (B)~~, a sulfur-free phosphorus compound (C), and a sulfur-free ashless anti-oxidant (D).

8. (Original): The lubricant according to claim 6, further comprising a friction modifier consisting at least one of an oxygen-containing organic compound and aliphatic amines.

9. (Cancel)